What is claimed is:

1. An apparatus for driving a liquid crystal display, comprising:

a picture quality improving unit that receives first data, extracts a brightness component for at least one liquid crystal cell of the liquid crystal display from the first data, analyzes brightness of the first data using the extracted brightness component, and generates second data having a contrast extended from that of the first data in accordance with the analyzed brightness;

a timing controller that rearranges the second data to supply the second data to a data driver;

a backlight that supplies light to the liquid crystal panel in accordance with a driving voltage or current; and

an inverter that supplies the driving voltage or current to the backlight.

2. The apparatus according to claim 1, wherein the inverter receives a brightness control signal corresponding to the brightness component of the first data from the picture quality improving unit, and supplies the driving current corresponding to the brightness control signal to the backlight.

3. The apparatus according to claim 2, wherein the picture quality improving unit generates the brightness control signal so that light proportional to the brightness of the brightness component is supplied to the liquid crystal panel from the backlight.

4. The apparatus according to claim 2, wherein the picture quality improving unit comprises:

an image signal modulation unit that generates the second data

using the first data;

a backlight control unit that generates the brightness control signal through control of the image signal modulation unit; and

a controller that receives a first synchronization signal and changes a received first synchronization signal in synchronization with the second data to supply the first synchronization signal synchronized to the second data to the timing controller.

5. The apparatus according to claim 4, wherein the image signal modulation unit comprises:

a brightness/color dividing unit that converts the first data into the brightness component and a color-difference component;

a histogram analyzer that accumulates the brightness components of a plurality of the liquid crystal cells in each frame into a histogram corresponding to a gray scale to determine brightness information;

a histogram modulation unit that generates, for each of at least some of the brightness components, a modulated brightness component having a contrast extended from that of the brightness component using the histogram analyzed from the histogram analyzer; and

a brightness/color mixing unit that generates the second data using one of the modulated brightness components and the associated color-difference component.

6. The apparatus according to claim 5, wherein the image signal modulation unit further comprises a delaying unit that delays each color-difference component until the brightness information is determined in the histogram analyzer.

7. The apparatus according to claim 5, wherein the histogram

modulation unit darkens a dark part of the brightness component and brightens a bright part to generate the modulated brightness component.

8. The apparatus according to claim 5, wherein the image signal modulation unit comprises:

a lookup table that provides reference data used to generate the brightness component in the backlight control unit and the brightness control signal corresponding to the modulated brightness component in the histogram modulation unit; and

a memory that temporarily stores the reference data extracted from the lookup table.

9. The apparatus according to claim 5, wherein the histogram analyzer supplies at least one of a minimum value of brightness, a maximum value of brightness and an average value of brightness to the backlight control unit, and the backlight control unit generates the brightness control signal in accordance with the at least one of the minimum value of brightness, the maximum value of brightness and the average value of brightness.

10. The apparatus according to claim 9, wherein the backlight control unit comprises:

a backlight controller that generates the brightness control signal; and

a digital/analog converter that converts the brightness control signal generated by the backlight controller into an analog signal.

11. The apparatus according to claim 5, wherein the liquid crystal panel is divided into a plurality of regions and the backlight

comprises a plurality of lamps, each of the lamps providing light to a different region of the plurality of regions.

12. The apparatus according to claim 11, wherein the histogram analyzer analyzes the histogram to supply at least one of a frequency of the gray scale for each region, a total frequency of the gray scale, a minimum brightness for each region, and a maximum brightness for each region to the backlight control unit.

13. The apparatus according to claim 12, wherein the backlight control unit generates a region brightness control signal supplied to the inverter and subsequently to the lamps such that light proportional to a brightness of each region is supplied from one of the lamps.

14. A method for driving a liquid crystal display comprising:

accumulating received first data into a histogram corresponding to a gray scale to analyze brightness information;

converting the first data into second data having a contrast extended from that of the first data using the brightness information; and

rearranging the second data and supplying the second data to a data driver.

15. The method according to claim 14, further comprising analyzing the brightness information of each frame.

16. The method according to claim 14, further comprising controlling a backlight in accordance with the brightness information.

17. The method according to claim 16, wherein light supplied to a liquid crystal panel from the backlight is controlled in proportion to a brightness of the brightness information.

18. The method according to claim 14, further comprising converting synchronization signals to synchronize with the second data.

19. A method for driving a liquid crystal display comprising:

converting received first data of each of a plurality of liquid crystal cells in a liquid crystal panel into a brightness component and a color-difference component;

accumulating the brightness components of a frame into a histogram to analyze brightness information;

altering the histogram such that a contrast of each of at least some of the brightness components is extended to generate a converted brightness component;

generating second data of which the contrast is extended using the converted brightness component and the associated color-difference component; and

rearranging the second data and supplying the second data to the liquid crystal panel through a data driver.

20. The method according to claim 19, further comprising delaying the color-difference component to synchronize the color-difference component and the converted brightness component.

21. The method according to claim 19, further comprising converting synchronization signals to synchronize with the second data.

22. The method according to claim 19, further comprising controlling a backlight in accordance with the brightness information.

23. The method according to claim 22, further comprising controlling light supplied to the liquid crystal panel from the backlight in proportion to brightness of the brightness information.

24. The method according to claim 22, wherein the liquid crystal panel is divided into a plurality of regions and the method further comprises supplying each region with light from one lamp of a plurality of lamps of the backlight.

25. The method according to claim 24, further comprising analyzing the brightness information of each region and producing region brightness information for each region.

26. The method according to claim 25, further comprising controlling light of each of the lamps in proportion to the brightness of the region brightness information.

27. The method according to claim 22, further comprising providing, from a lookup table, reference data used to control the backlight and to alter the histogram.

28. The method according to claim 27, further comprising temporarily storing the reference data extracted from the lookup table in a memory prior to supplying the reference data.

29. The method according to claim 27, further comprising

experimentally determining the reference data.

30. The method according to claim 29, further comprising experimentally determining the information prior to the histogram being accumulated.

31. An apparatus that increases contrast of images displayed in a liquid crystal display, comprising a picture quality improving unit that extracts a brightness component from received first data, generates a modified brightness component having a different gray scale value than the brightness component, and produces second data using the modified brightness component, wherein an image produced using the second data has a higher contrast than an image produced using the first data.

32. The apparatus according to claim 31, further comprising a data driver that supplies the second data to liquid crystal cells of a liquid crystal panel of the liquid crystal display.

33. The apparatus according to claim 32, further comprising a backlight that supplies light to the liquid crystal panel proportional to the brightness component.

34. The apparatus according to claim 33, further comprising a timing controller that rearranges the second data and supplies the rearranged second data to the data driver, wherein the picture quality improving unit comprises:

an image signal modulation unit that generates the second data;

a backlight control unit that generates a brightness control signal that controls the backlight; and

a controller that synchronizes a synchronization signal with the second data and supplies the synchronization signal to the timing controller.

35. The apparatus according to claim 34, wherein the image signal modulation unit comprises:

a brightness/color dividing unit that converts the first data into the brightness component and a color-difference component;

a histogram analyzer that accumulates, for a particular frame, the brightness components of a plurality of the liquid crystal cells into a histogram to determine brightness information;

a histogram modulation unit that generates, for each of at least some of the brightness components, the modulated brightness components using the histogram analyzed from the histogram analyzer; and

a brightness/color mixing unit that generates the second data using one of the modulated brightness components and the color-difference component associated with the brightness component from which the one of the modulated brightness components was generated.

36. The apparatus according to claim 35, wherein the image signal modulation unit further comprises a delaying unit that delays the associated color-difference component such that the one of the modulated brightness components and the associated color-difference component are supplied synchronously to the brightness/color mixing unit.

37. The apparatus according to claim 35, wherein the histogram modulation unit generates the modulated brightness components for

the brightness components of each of the liquid crystal cells.

38. The apparatus according to claim 35, wherein the histogram modulation unit generates the modulated brightness components for the brightness components in each frame.

39. The apparatus according to claim 35, wherein the image signal modulation unit comprises a lookup table that provides reference data used, in the backlight control unit, to control the backlight and, in the histogram modulation unit, to generate the modulated brightness component.

40. The apparatus according to claim 39, wherein the image signal modulation unit further comprises a memory that temporarily stores the reference data extracted from the lookup table.

41. The apparatus according to claim 39, wherein the reference data exists in the lookup table prior to the histogram being accumulated.

42. The apparatus according to claim 35, wherein the histogram analyzer supplies at least one of a minimum value of brightness, a maximum value of brightness and an average value of brightness to the backlight control unit, and the backlight control unit generates the brightness control signal in accordance with the at least one of the minimum value of brightness, the maximum value of brightness and the average value of brightness.

43. The apparatus according to claim 42, wherein the backlight control unit comprises:

a backlight controller that generates the brightness control signal; and

a digital/analog converter that converts the brightness control signal generated by the backlight controller into an analog signal.

44. The apparatus according to claim 35, wherein the backlight comprises a plurality of lamps, each of the lamps providing light to a different region of the liquid crystal panel.

45. The apparatus according to claim 44, wherein the histogram analyzer analyzes the histogram to supply at least one of a frequency of the gray scale for each region, a total frequency of the gray scale, a minimum brightness for each region, and a maximum brightness for each region to the backlight control unit.

46. The apparatus according to claim 45, wherein the backlight control unit generates a region brightness control signal that controls the lamps such that light proportional to a brightness of each different region is supplied by a different one of the lamps.